



Data Systems and Preservation Working Group Report

Paul Wagner

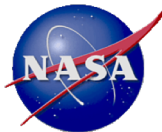
August 29, 2019

Aura Science Meeting – DSWG/DSPWG

Pasadena California

Jet Propulsion Laboratory

California Institute of Technology



Topics

- Instrument Team Ground Data System Reports
 - MLS (Paul Wagner, Amy Chen, Brian Knosp)
 - OMI (Quintus Kleipool, Phil Durbin)
 - TES (Eugene Chu, Richard Lay)
- Aura (HDF-EOS) Guidelines and its Future
- GES DISC Status and Data Preservation Efforts (James Johnson)



MLS

- Products and current versions
 - Standard level 2, v4.23
 - New level 3 products near delivery
 - Near-real time detects and removes granules with faulty geolocations
- Under development
 - V5 with numerous improvements
 - Reduction of dry bias and of instrument drifts
- SIPS
 - Processed v3 from Aug 2009 through July 2015
 - Level 3 products beginning July 2016
 - Mustard processing of MLS and other satellite data
- Services provided MLS data users



OMI

- Standard products still at Data Collection 3
- A new Collection 4 L0-L1B is in preparation
- Four products have been reprocessed since May 2018
- Plan to produce Collection 4 products in netCDF-4
- Plan to produce two different versions
 - A “Forward Processing” would be produced first
 - A “Best Processing” version would follow one month later
- Switched from ftp to https for NRT/LANCE file distribution



TES

- TES SIPS continues to generate many products
 - TES standard products (R15)
 - Combined TES-MLS and TES-OMI products
 - ROSES and MUSES
- Data Preservation
 - Includes ATBDs, calibration, validation, user documentation
 - Paper data scanned and moved to GSFC
 - New ethylene, acetone, and HCN standard products
 - [GSFC 423-SPEC-001](#), NASA Earth Science Data Preservation Content Specification
- End of Project Archiving
 - JPL sets some requirements and policies
 - Other requirements and guidelines set by ASDC DAAC and NARA



Aura (HDF-EOS) Guidelines

- Served its stated purpose well
- Future instrument teams, and some future products from current teams, are mostly netCDF with CF
- Next version should
 - Capture data formats already frozen; e.g., HIRDLS
 - Link to standard data interoperability:
<https://earthdata.nasa.gov/esdis/eso/standards-and-references/climate-and-forecast-cf-metadata-conventions>
 - Document new standard and joint products
 - Acknowledge that some products will not be converted to netCDF+CF
 - Aim not just to help users discover data but to understand it



GES DISC Status and Data Preservation

- Supporting products of MLS and OMI; and TROPOMI
 - Requires registering with a username and password as well as authorization to access data
 - This allows EOSDIS to better track data usage and understand users' needs
 - Users must use https access afterwards
- L2 and L34 subsetters and regridders available to users
- Giovanni v4
- OPeNDAP
- A new Data Publication System will let users formally apply to upload self-created data products
- HIRDLS data preservation complete; MLS in progress
- More details to be presented in Jennifer Wei's talk and James Johnson's poster